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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,848	01/02/2001	Jeong-hoon Park	Q62028	9288

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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/751,848	PARK ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *30 and 31* is/are allowed.

6)☒ Claim(s) *1,2,5-28,32,36-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 5 – 28, 32, 36 – 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig (US 6,697,352 B1) and Snelgrove et al. (US 6985722 B1) in view of Zhu (US 6,154,780).

Regarding Claims 1, 2, 32, 33, Ludwig discloses the limitation of a method of transmitting a bit stream in a communication network (recited "generating data packets (as a bit stream) to be sent out having a first data structure determined by a first predetermined protocol" as a method of transmitting a bit stream in a communication network; column 5, lines 26 – 36), the method comprising: (b) adding a header from each communication protocol layer to a payload while transmitting the bit stream coded in the step of to each communication protocol layer (recited "passing data through the layers" as adding a header from each communication protocol layer to a payload; Fig 5, column 2, lines 10 – 33, column 17, lines 4 – 15); and, wherein in step (c), a bit stream, to which header information has been added by undergoing each communication protocol layer (recited "passing data through the layers" as header information has been added by undergoing each communication protocol layer; Fig 5, column 2, lines 10 –

33, column 17, lines 4 – 15) is transmitted in an unacknowledged mode protocol (recited "no unacknowledged numbered mode packets is allowed to be outstanding" as a bit stream is transmitted in an unacknowledged mode protocol; column 15, lines 50 – 56), and only the header information in the bit stream is transmitted in an acknowledged mode protocol (recited "by means of acknowledgement messages" as header information in the bit stream is transmitted in an acknowledged mode protocol; column 4, lines 13 – 22, Fig. 5, column 14, lines 66 – 67). However, Ludwig does not disclose explicitly the limitation of only the header information in the bit stream is separately transmitted in acknowledged mode protocol. Snelgrove et al. disclose the limitation of only the header information in the bit stream is separately transmitted in acknowledged mode protocol (recited "the header of incoming data received from an IP source is compressed by the header compression node, which transmits the state and the traffic separately" as header information in the bit stream is separately transmitted; fig 8, column 20, lines 5 – 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ludwig to include only the header information in the bit stream is separately transmitted in acknowledged mode protocol such as that taught by Snelgrove et al. in order to provide a method and system of providing telecommunication services that is flexible and efficient (as suggested by Snelgrove et al., see column 1, lines 9 – 11). Both Ludwig and Snelgrove et al. do not disclose explicitly (a) coding source data into the bit stream using a predetermined type of coding. Zhu discloses the limitation of (a) coding source data into the bit stream using a predetermined type of coding (column 1, lines 33-34 — using H.263 representing a picture in an encoded video bitstream). Therefore, it would have been obvious to modify

both Ludwig and Snelgrove et al. to include coding source data into the bit stream using a predetermined type of coding as that taught by Zhu in order to create a flexible bitstream that may be efficiently packetized for a variety of transport protocols (as suggested by Zhu, see column 3, lines 26 – 27).

Regarding claims 5, 6, 36, 37, Ludwig discloses the limitation of when the number of times of re-transmission of a bit stream transmitted in an acknowledged mode protocol is equal to or less than a predetermined number of times, the bit stream, which has been transmitted in an unacknowledged mode protocol, is transmitted in an acknowledged mode protocol (recited "moving up to next protocol layer for a predetermined number of times, where the exceeding of said predetermined numbers of times leads to a default mode" as the number of times of re-transmission of a bit stream transmitted in an acknowledged mode protocol is equal to or less than a predetermined number of times; column 12, lines 41 – 50).

Regarding claims 7, 8, 9, and 38, 39, 40, Ludwig discloses the limitation of the header information in the bit stream be simultaneously transmitted in an acknowledged mode protocol with the bit stream (column 14, lines 66-67). He also teaches that the header information in the bit stream is simultaneously transmitted in an acknowledged mode protocol with the payload (column 15, lines 6-12). And the header information in the bit stream is simultaneously transmitted in the unacknowledged mode protocol with the bit stream (column 14, lines 62-64).

Regarding claims 10, 41, Ludwig discloses that as a transmission error occurs, the bit stream, to which headers have been added by undergoing each communication protocol layer, is re-transmitted in an acknowledged or unacknowledged mode protocol (recited "protocol provides a numbered reliability mode and an unnumbered reliability mode" as each communication protocol layer, is re-transmitted in an acknowledged or unacknowledged mode protocol; column11, lines 48-57).

Regarding Claims 11,12, 13, 14, 15,16 and 42, 43, 44, 45, 46,47, Ludwig teaches the acknowledged mode protocol being a transmission control protocol (TCP), and the unacknowledged mode protocol being a user datagram protocol (UDP). (recited "by means of acknowledgement messages" as header information in the bit stream is transmitted in an acknowledged mode protocol; column 4, lines 13 – 22, Fig. 5, column 14, lines 66 – 67, Column 6, lines 24-26; lines 35-37; column 11, lines 48-57, Fig 9a and 9b).

Regarding Claims 17, 18, 19, 20, 21, 22, 23, 24 and 48, 49, 50, 51, 52, 53, 54, 55, Ludwig discloses the limitations of the acknowledged mode retransmitting Internet Protocol (IP) or Radio Link Protocol (RLP) packets (recited "acknowledgment packages" as acknowledged mode retransmitting ; Column 11, lines 50-57; recited "RLP packets of the numbered mode that are to be retransmitted" as Radio Link Protocol (RLP); column 13, lines 60-63).

Regarding Claims 25, 26, 56,57 Ludwig discloses the limitations of the headers are a payload header, a real time protocol (RTP) header, a user datagram protocol (UDP) or transmission control protocol (TCP) header, an Internet protocol (IP) header, a radio link protocol (RLP) header, and a layer 2 (L2) header, which are added after a bit stream is passed through each layer (column 6, lines 15-26, Fig.5 and Fig.6)

Regarding claims 27, 28 and 58, 59, Ludwig discloses the payload includes multimedia data (recited "real-time data streams" as payload includes multimedia data; column 6, lines 60-65; column 17, lines 18-19).

Regarding Claim 29, Ludwig discloses the limitations of adding the header of each communication protocol layer to a payload while transmitting the bit stream encoded by the encoder to each communication protocol layer (recited "passing data through the layers" as adding the header of each communication protocol layer to a payload; Fig. 5, column 2, lines 10 – 32); and a packet processing unit for transmitting the bit stream processed by the protocol processing unit in an unacknowledged mode protocol (column 6, lines 25 – 26; lines 34 – 37) and transmitting the header information in an unacknowledged or acknowledged mode protocol (Fig 5, column 6, lines 26 – 27; column 12, lines 33 – 34). Both Ludwig and Snelgrove et al. do not disclose explicitly the limitations of an encoder for encoding source data into a bit stream. Zhu discloses the limitations of an encoder for encoding source data into a bit stream (recited " an encoder/decoder (codec) as an encoder for encoding source data; column 6, lines 10-14, Fig 5; lines 5-9). Therefore, it would have been obvious to modify Both Ludwig and

Snelgrove et al. to include an encoder for encoding source data into a bit stream such as that taught by Zhu in order to create a flexible bitstream that may be efficiently packetized for a variety of transport protocols (as suggested by Zhu, see column 3, lines 26 – 27).

Allowable Subject Matter

3. Claim 30 is allowed over prior art.

Additionally, also the further limitation in claim 31 is allowable since the claim is dependent upon the independent claim 30.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ogus U.S. Patent Number 6438603 B1 discloses the network protocol enables application programs to use a reliable channel and a non-reliable channel over the same network communications link between a local and remote computer using TCP and UDP.

Parantainen et al. U.S. Patent Number 6771659 B1 discloses selective acknowledgement scheme for a wireless interface between a transmitting side and a receiving side.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL

July 05, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER